ENVIRONMENTAL SUSTAINABILITY OF UNIVERSITY LIBRARIES IN KERALA

Research Proposal submitted by

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INTRODUCTION

Environmental Sustainable library or green library is considered as a growing concept in the library domain. Sustainability is the capacity to improve the quality of human life while living within the carrying capacity of the earth's supporting eco-systems (International Union for Conservation of Nature, IUCN). An eco-friendly library is becoming an integral part of our service and it is also essentially demanded by our nature and society. Ecological sustainability simply means building and maintains an eco-friendly environment. That means eco-friendliness will gives better life to our future generation and society. Nowadays the term 'Environmental Sustainability' directlypoints out the concept of a green library. Green Library is a structure that is designed, constructed, renovated, operated, and reused in an ecological and resource-efficient way (Cal Recycle, 2000).

According to the Online Dictionary for Library and Information Science (ODLIS), Green libraries are "designed to minimize the negative impact on the natural environment and Maximize indoor environmental quality through careful site selection, use of natural construction materials and biodegradable product, conservation of resources (water, energy, paper) and responsible waste disposal (recycling, etc.)".

The present study aims to analyze the level of eco-friendliness and the current status of university libraries in Kerala towards green library practices. Presently there are a few green libraries in India. Those are Anna Centenary Library Chennai, Karnataka University Library Dharward, Delhi University Library, Culcutta University Library, etc...As per previous studies, the researcher could

find out some libraries are beginning to apply green practices in their libraries in Kerala also. In this era, the importance of the concept of being green is very clear. The role of librarians in the changing scenario is very high that's why the libraries begin the primary steps to making green libraries. In this study, the researcher intended to find out the awareness and attitude of library professionals towards the green library and identify what are the necessary steps they take to going green.

Definition of Key Terms

Environmental sustainability

According to U.N. Environment Programme "Environmental Sustainability involves making life choices that ensure an equal, if not better, way of life for future generation".

In this study environmental sustainability means building and maintaining an eco-friendly atmosphere or an environment in libraries through adopting some techniques like water harvesting, energy conservation, waste management policies, recycling methods etc…

Statement of the problem

The concept of greening begins to become a green movement all over the world. The idea of constructing a green library is not a new one. Unfortunately, the numbers of full-fledged green libraries are low out of the total number of libraries in India. But, some existing libraries have already been trying to develop green concepts in libraries through some ideological approaches as per the recommendations of UGC, NAAC, AICTE, etc. In this way, the amount of

information on green libraries is limited, but it continues to grow. Therefore, we have to develop our libraries into environmentally friendly one. After bringing the green practices into the mainstream, we can minimize pollution, maximize the efficient use of natural resources, and also make an effort to decrease the excessive emission of greenhouse gases. Almost all libraries in India and outside India couldn't follow the standards of a green building when it was constructing, because those buildings were built years ago by our ancestors. So, the libraries have a chance to take action to make the existing libraries into green ones through adapting some techniques during the maintenance period. As per the previous studies, we can understand that the cost of making a green library is comparatively low. The number of studies is conducted in this area is very limited and none of the studies conducted in the same context. Hence in-depth studies should be necessary for this area. In this study, the investigator intends to identify the level of eco-friendliness and current status of University Libraries in Kerala on the green library movement and analyze whether the university libraries in Kerala take any initiatives to bring environmental sustainability or not.

The problem of the study entitled **"Environmental Sustainability of University Libraries in Kerala."**

Review of Literature

Shanmugan (2020) conducted a study on emerging trends in green libraries. This study discussed the steps behind the construction of a green library ie, Site selection, water conservation, Energy conservation, Building Materials, and indoor air quality. This study also made some suggestions for green libraries in India.

Singh & Mishra (2019) analyzed the environmental sustainability in libraries through green practices/services. Investigator discussed the role of green practices in the sustainability of libraries and also explained what kind of green practices are needed for developing sustainable libraries. This study realized that the adverse impact of new technologies on the environment also increases the requirement for green practices/services within libraries and reducing the carbon footprint.

Suresh & Sofiya (2019) conducted a study on the application of green concepts in libraries of Thiruvananthapuram. This study mainly focused on six major libraries in Thiruvananthapuram. Data were collected through a questionnaire. The Five-point Lickert scale was used for identifying the attitude of the users towards greening concepts. The study found that Vikram Sarabhai Space Research Centre (VSSC) library occupied the top position in the adoption of greening concepts and methods.

Noh & Ahn (2018) identified some evaluation indicators for green libraries and library Eco-friendliness. Investigator conducted a trial evaluation to assess the eco-friendliness of the library based on the determined evaluation standards. This study was set up to serve as basic data for the direction of development for green libraries in our country, as well as a reference for the employees of the library in constructing or remodeling library buildings, establishing service infrastructure, providing information services, and planning library in an eco-friendly way.

Norton, Judith (2014) analyzed how to conduct an environmental audit in your library. This study discussed the importance of environmental audits in libraries and explained various types of environmental audits. This study mentioned that the audit process, these processes contains three phases that are preparation, the actual audit, and post-audit activities.

Jankowska & Marcum (2010) conducted a study entitled sustainability challenges for academic libraries: planning for the future. This study discussed the multidimensional problems of sustainability of academic libraries and identified the need for designing an integrated framework for sustainable strategies in academic libraries. It was additionally added some frameworks for developing sustainable strategies in academic libraries.

Tseng (2007) analyzed the green library design and evaluation of Taipei public Library, Taiwan. The main aim of this study was to introduce the planning and architectural designs, features, and the Pest Occupancy Evaluation (POE) of the Beitou Branch Library in the Taipei public library system. In this study, the investigator conducted a library-user survey with the help of a questionnaire for data collection. The major findings of the study were that its innovative design and unique architecture and furniture have created a trend for new concepts in Taiwan and it was increasing the number of library visits.

Objectives of the Study

1. To understand the awareness of library professionals towards green library initiatives.
2. To understand the attitude of library professionals towards green library initiatives.
3. To identify the various techniques and methods adopted by University libraries in Kerala for practicing going green policies.
4. To analyze the challenges faced by University Libraries in Kerala while practicing going green policies.
5. To suggest a proposal for evaluating the environmental sustainability of Libraries in Kerala.

Hypotheses

1. There is significant gender difference in the awareness and attitude of library professionals towards green library initiatives.

2. There is a significant difference in the level of eco-friendliness in university libraries in Kerala.

3. The major techniques adopted by the university libraries for practicing green policies are energy conservation, water conservation, maintaining indoor air quality, etc…

4. The major challenges to go green are lack of funds, lack of enough recycling methods, lack of support of parent institutions.

5. There is significant difference in the amount of emission of carbon in University libraries in Kerala.

Methodology

Leadership in energy and environmental design (LEED-India) green building rating system is a nationally and internationally accepted benchmark for the design, construction, and operation of high-performance green buildings. There are four certification levels (certified, silver, gold, platinum) awarded according to achievement as evaluated by points using the LEED scorecard. LEED parameters can help to conduct an environmental audit or green audit in our institutions.

The researcher aimed to find out the status of university libraries in Kerala regarding green library practices. The universe of the study comprises university libraries in Kerala. The study is limited to selected Unversity libraries in Kerala. This study intends to collect data from University libraries in Kerala through a combined tool like a checklist, a questionnaire, and an interview. The level of eco-friendliness can be measured through Youghee Noh's evaluation

indicators. The researcher proposes an independent checklist based on a combination of the LEED checklist, IFLA's checklist, Klaus Ulrich Werner's checklist, Mahboubeh Ghorbani checklist, and Judith Norton's worksheet.

The major parameters listed by LEED are taken for this study is:

1. Site Location
2. Water Conservation
3. Energy Efficiency
4. Materials
5. Indoor air quality
6. Design of the building

Variables Used for the Study

Variables used for the study were divided into two dependant variables and independent variables.

Dependent variables

- Use of recycled materials for the construction of Library buildings
- Types of computer monitors used
- Proper ventilation
- Library Air-conditioned or not
- Types of lights used in the Library
- Use of solar energy
- Use of pesticides for preserving materials
- Rainwater harvesting

• Use of e-resources

• E-governance in the library

Independent variables

- **Grants**
- University libraries in Kerala
- Gender

Scope of the study

Environmental changes and challenges are mainly caused by human activities. However, they influence the survival of all living species, the integrity of the earth, the security of nations, and the heritage of future generations. Consequently, there is a need for urgent action to address these problems by changing people's and institutions' behaviors to reverse the trend and repair the damage (Kurbanoglu & Boustany, 2014). The library is a growing organism; the concept of the green library has been growing up. Every library is considered a social institution and it has some social responsibility to meet. Hence, the libraries have the responsibility to reduce the harmful effect on the environment.

In India, we are in an infant stage regarding the application of green practices in our libraries. Unfortunately, only a few numbers of full-fledged green libraries are available in India. In this context, this study intends to know about the level of eco-friendliness and the current status of University libraries in Kerala regarding green practices. And also identify the challenges facing by the University libraries in Kerala while adapting green practice or to become an eco-friendly library. The findings of the study help to set up a framework for libraries in Kerala to creating an eco-friendly environment and a make aself assessment.

Conclusion

Being a social institution, the libraries have the responsibility to bring the concept of greening into the mainstream. Librarians should become role models to society by maintaining environmental sustainability in libraries. Libraries should also take initiatives to be aware and promote the community to understand the relevance of green concepts and sustainable concepts. In this proposed study the investigator would conduct a green evaluation among university libraries in Kerala. That will reveal the actual face of our libraries towards green practices. The findings of the study would be helpful for authorities to check the current status of university libraries in Kerala regarding their green practices. This study will also disclose the attitude of library professionals in University libraries towards the concept of making green.

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